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Day 11

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# 11.0.C Hands-on Computer Models Phases and Intermolecular Forces

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Introduction to Molecular Dynamics (Odyssey)    You can download the program from UNH for free.

Pull up two stools to a computer

Turn screen on (lower right).    Move mouse to wake it up.

Find Odyssey icon on desktop.    Double click to open.

Click on Molecular Labs #88

Bromine Br<sub>2</sub> (g)    Click > below image to activate.    You can click and hold on the image to rotate it at any time.

Click on (liquid).    Scroll wheel to enlarge.    > to activate if needed

Click on (solid).    Scroll wheel to enlarge.

Click on “ball and spoke” for a different view (easier to see structure)

Why is there structure?    What does the bar between some atoms mean?

#95    Shows an array of diatomic polar substances.

Click > below and watch for 20 seconds.    Click || to stop.    Structure intact?

Scroll down to Q4 and click “turn off dipoles”.    Then run again for 20 sec.

What happens to the structure and why?

#98    Ice    Click >    After a while, find Hydrogen bonds “show”.

What’s that all about?

Applied Chem #50    look at butter, corn oil

Stearic acid, oleic acid

Stockroom Periodic Table click on N    See dinitrogen.